

[KV 806]

**DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION**  
(Regulations 2008 - 2009)

(Candidates admitted from 2008-2009 onwards)

**FIRST YEAR**

**Paper VI – REMEDIAL MATHEMATICS**

*Q.P. Code : 383806*

**Time : Three hours**

**Maximum : 70 marks**

**Answer All questions**

**I. Essay Questions :**

**(2X 20 = 40)**

1. a) Define matrix,

Given  $A = \begin{pmatrix} 1 & 2 \\ 2 & 1 \end{pmatrix}$   $B = \begin{pmatrix} 2 & 1 \\ 2 & 4 \end{pmatrix}$   $C = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$

b) Define Leibnitz's linear differential equation and solve

$$X \log X \frac{DY}{DX} + Y = 2 \log X$$

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DX

$$DX \quad X+Y-2$$

2. Find the differential coefficients of the following function.

a)  $X + \sin X$

b)  $\sin^m ax \cos^n \beta x$

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 $X + \cos X$

**II. Write Short Notes :**

**(6 X 5 = 30)**

1. Define column matrix, determinants and multiplication of two matrices.

2. Find the equation of two straight lines through (1-1) inclined at 45° at the line  $2X-5Y+7=0$

3. Differentiate the function  $6X-4Y=12$ , to obtain  $DY/DX$ .

4.  $L + \frac{5X^2-4}{X \rightarrow 1} \frac{3X^2+1}{}$

5. What is fundamental formulae of integration and evaluate the integral

$$\int_a^b \frac{\log x}{X} dx = ?$$

6. Draw graph of function  $Y = ax^2 + bx + c$ , where a, b and c are constants and  $a \neq 0$ .

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